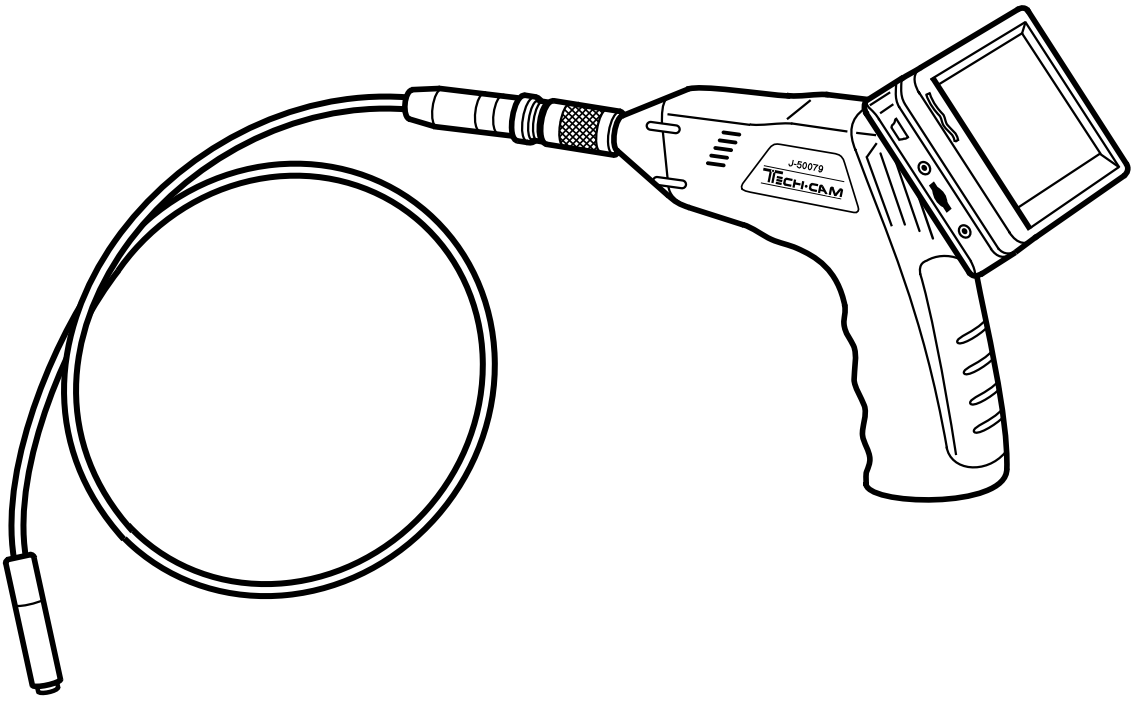
J-50079 Tech•Cam User Guide



TECH•MATE
NISSAN AUTHORIZED
TOOL & EQUIPMENT PROGRAM
1-800-662-2001 • nissantechmate.com

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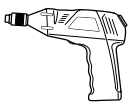
Introduction

The Tech·Cam is a precision tool designed to allow a technician to view into inaccessible locations. It has a detachable wireless monitor that enables the image to be viewed while the camera is in a confined area. It also has a wireless dongle that will allow remote viewing over the internet. The images and video can be saved onto the monitors memory and transferred to a PC. These files and images can then be distributed for inspection.

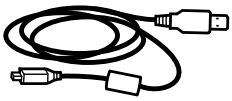
Features

- Allows for easy surveying of small, hard-to-reach places.
- Mini 9mm waterproof LED lens, 1.0 meter flexible tube.
- Manufactured and tested to IP67 waterproof standard.
- 3.5”TFT-LCD detachable/mountable monitor, built-in rechargeable Li-battery.
- Video recording capability, supports up to 32GB micro SD card.
- Adjustable brightness on lens-mounted LED light.
- 3 useful accessories included: Hook, mirror and magnet.
- Lightweight, handheld design, flexible and convenient to use.
- Multi-language support.
- Wireless real-time viewing on a PC with the wireless dongle.
- Can be used retrieve and manipulate small difficult to reach objects.

Components

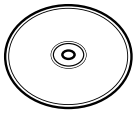

Handle

LCD Monitor

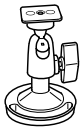

USB Cable

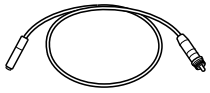
Power Adapter

Video Cable


Software CD

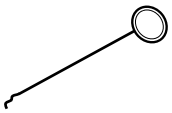
Micro SD Card

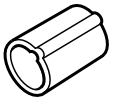

Magnatic Bracket

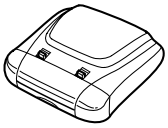

Waterproof LED Lens

Hook

Magnet


Mirror


Rubber Ring


Charger

Not Pictured

Case

Not Pictured

Dongle

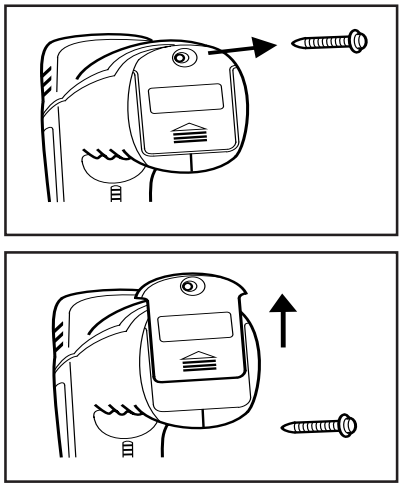
Not Pictured

USB Extension

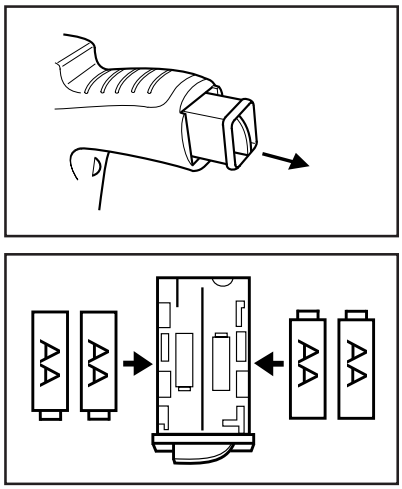
Initial Set-up

To Install Batteries in the camera handle

1. Using a Philips head screwdriver, remove screw and cover as illustrated below:



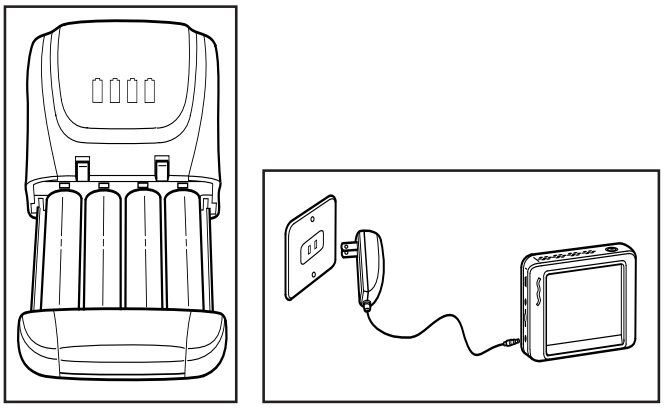
2. Remove battery compartment and insert four (4) AA batteries into their appropriate slots, with proper orientation, as indicated on the battery compartment.



3. Reinstall battery compartment and replace battery cover and screw.

Battery Charger

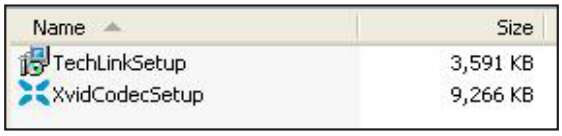
The AA NiMH batteries can be charged with the supplied battery charger. Detailed instructions can be found in the original packaging.



To charge the monitor connect the monitor to an appropriate (100-240V ~ 50/60Hz) power source with the provided adapter. The power indicator LED will illuminate red and the battery capacity icon on the LCD will flicker, indicating that the battery is charging. When the red indicator light disappears, the battery has been fully charged.

Software Installation

1. Insert the CD.
2. If the CD does not auto run open My Computer and double click on the CD drive.
3. Install the Tech·Link software with the following instructions. This will allow you to view the camera in realtime on the PC.
4. Install the Xvid Codec with the following instructions. This will allow you to view recorded videos on a PC.



Tech•Link Software Installation

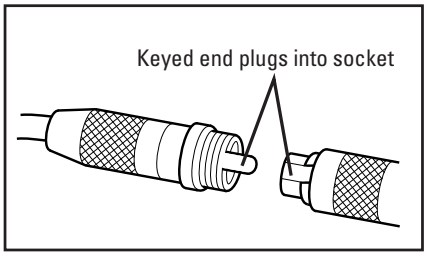
1. Run the file named TechLinkSetup.msi
2. At the welcome screen click *Next*.
3. Chose an installation directory. Program Files is default. Click *Next*.
4. Click *Install*.
5. Make sure *"Launch TechLink"* is checked and click *Finish*.
6. The Wireless USB Dongle software wizard will now launch. When prompted to insert the camera, plug the TechLink into a USB port and click *Yes*.
7. If prompted to install an unsigned driver click *Continue Anyway.*
8. Click *Finish* when prompted.

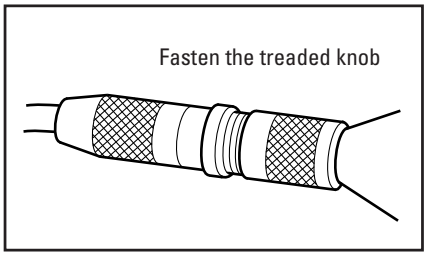
Xvid Codec Installation

1. Click *Next* at the welcome screen.
1. Accept the license agreement and click *Next*.
2. Chose the installation folder and click *Next*.
3. If prompted click *Continue Anyway*.
4. Click *Yes* to automatically check for updates.

Attaching Camera

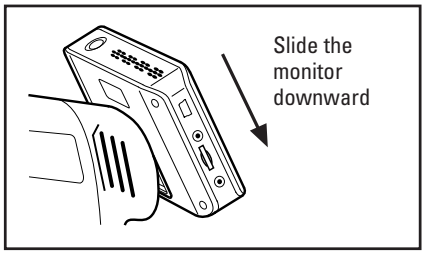
To connect the flexible tube camera with control handle, first make sure that the keyed end of the tube is aligned with the slot in the handle, then use slight force to push them together. Once properly aligned, twist the treaded knob clockwise until the connection is securely in place.

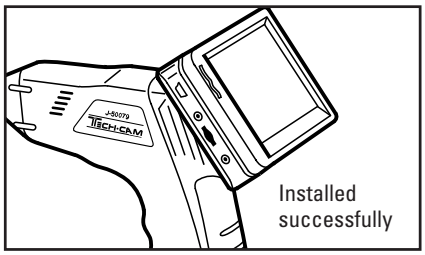




Attaching Monitor

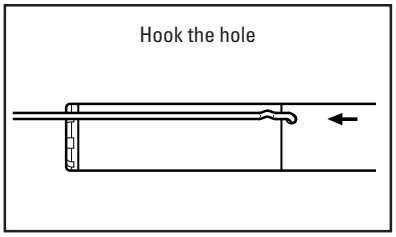
To attach the monitor, place the slot on the back of the monitor over the tab on the camera handle. Push down on the monitor until it clicks into place.

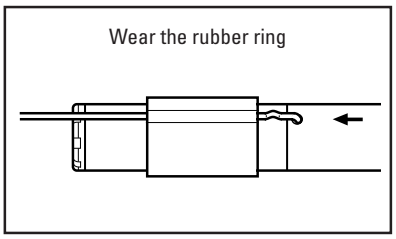




Attaching Camera Accessories

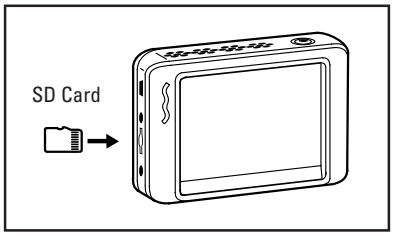
Insert the end of either the mirror, hook, or magnet into the small hole in the end of the camera tube. Now slide the rubber ring over the accessory and the camera to secure it.





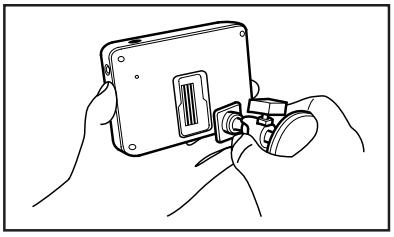
SD Memory Card

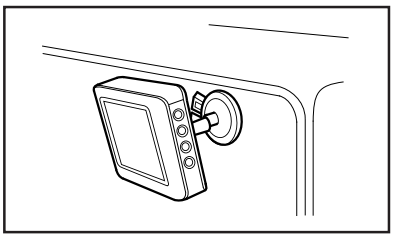
After SD card is inserted into SD card slot successfully, an SD card icon will appear on the monitor screen; otherwise, the 'no SD card' icon will show.



Monitor Mounting Bracket

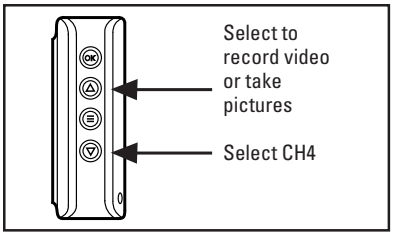
To install the magnetic monitor mounting bracket, slide the monitor on using the same method as attaching it to the camera handle. The mounting surface should be clean before attaching.





Basic Operation

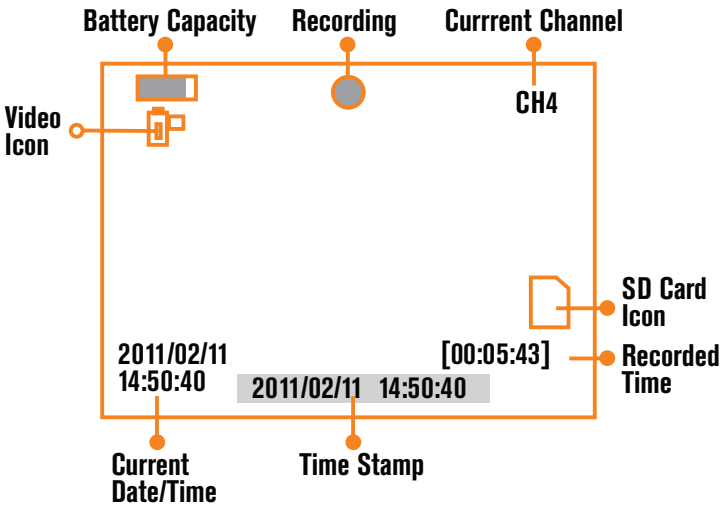
1. As you roll the power switch to turn on the camera, the power indicator on the camera handle will light. The rolling switch then acts as a dimmer for the twin LEDs that surround the camera on the end of the flexible tube.
2. Press and hold the power switch for 2 seconds on the monitor until the power indicator illuminates green. Then press the "down" button to select CH4 (channel 4), or until the picture from the lens is displayed on the monitor. To toggle between video recording and picture taking functions, press the "up" button on the side of the monitor.



Recording Video

1. In real-time monitoring mode, press the ▲ button to toggle to video recording mode.
2. Press the 'OK' button to begin recording:
3. Press again to stop recording.

- The video will be automatically saved as an individual file every 30 minutes.
- The F icon indicates that the SD card memory is full.



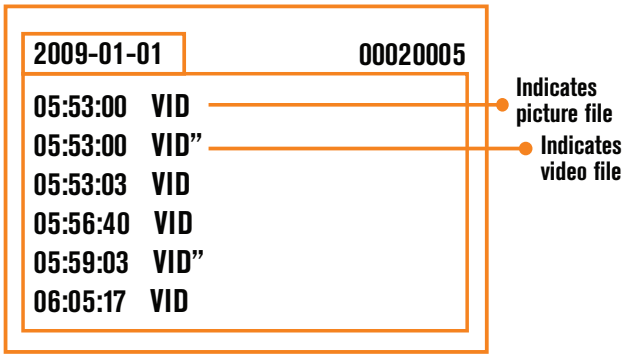
Taking a Picture

1. In real-time monitoring mode, press the ▲ button to toggle to picture mode.
2. Press the 'OK' button to take a picture.

Photo Icon

Playback Video or Picture

1. In real-time monitoring mode, press the ☰ button to toggle to the video/picture folder.
2. Press the ▲ and ▼ buttons to select your desired folder, then the press 'OK' to toggle to the following interface:



Note: *A quotation mark (") next to a file name indicates that the file is a video. No double quotation mark next to a file indicates that the file is a picture.*

For playback video: Press the ▲ or ▼ button to select your desired video, and then press 'OK' to playback.

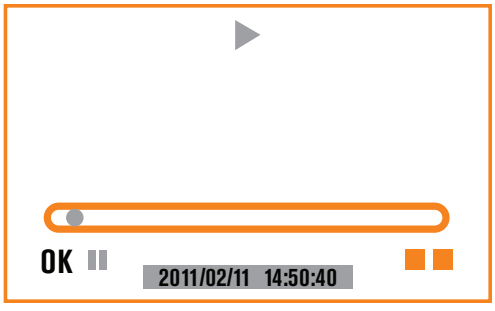
Pause: press the 'OK' button once to pause, press again to resume play.

Fast Forward: press the ▲ button.

Rewind: press the ▼ button.

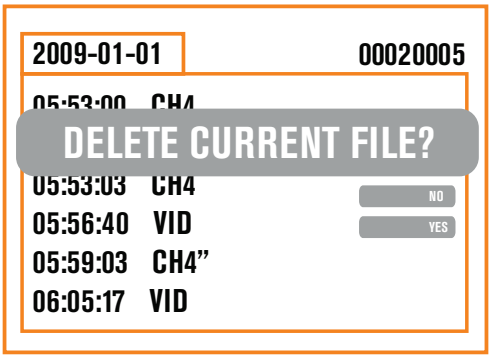
Stop/Exit: press the ☰ button.

To view pictures: Press the ▲ or ▼ button to select your desired video, press 'OK' button to view and press again to exit.



Deleting Video/Picture

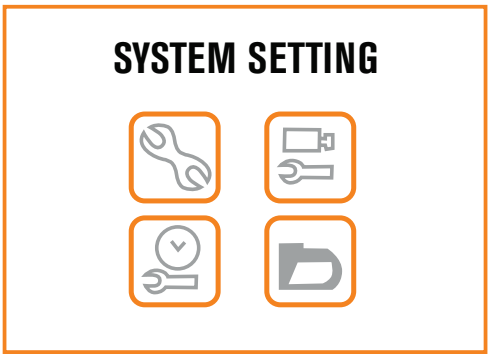
1. In real-time monitoring mode, press the ☰ button to toggle to the video/picture folder.
2. Press the ▲ or ▼ button to select your desired folder, and then press 'OK' button.
3. Press the ▲ or ▼ button to select your desired file, and then press and hold the ☰ button for 2 seconds, or until the following interface appears:



4. Press the ▲ or ▼ button to toggle between YES and NO, that is, to delete or cancel. Once you have highlighted your desired selection, press the 'OK' button.

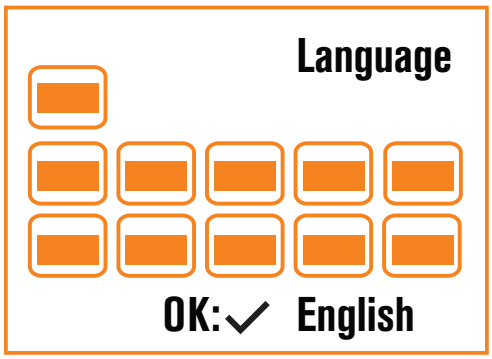
How to Enter the Setting Mode

In real-time monitoring mode, press and hold the ☰ button for 1-2 seconds, or until the following interface appears:



Language Setting

1. In the setting mode, press the ▲ or ▼ button to select 'SYSTEM SETTING', and then press 'OK' button.
2. Press the ▲ or ▼ button to select 'Language', then press 'OK' button, the following interface will appear:



3. Press the ▲ or ▼ button to select a desired language.
4. Press 'OK' button to confirm and exit.

Video System Setting

1. In the setting mode, press the ▲ or ▼ button to select 'SYSTEM SETTING', then press 'OK' button.
2. Press the ▲ or ▼ button to select 'Video System' and then press 'OK' button.
3. Press the ▲ or ▼ button to toggle between NTSC and PAL. Once your desired system is selected, press 'OK' button to confirm and exit.

Formating

1. In the setting mode, press the ▲ or ▼ button to select 'SYSTEM SETTING ', and then press 'OK' button.
2. Press the ▲ or ▼ button to select 'Format', and then press 'OK' button.
3. Press the ▲ or ▼ button to toggle between YES and NO, that is, to format or cancel. Once you have highlighted your desired selection, press the 'OK' button.

Default Setup

1. In the setting mode, press the ▲ or ▼ button to select 'SYSTEM SETTING', then press 'OK' button.
2. Press the ▲ or ▼ button to select 'Default Setup' and then press 'OK' button.
3. Press the ▲ or ▼ button to toggle between YES and NO, that is to restore.

View Version Information

1. In the setting mode, press the ▲ or ▼ button to select 'SYSTEM SETTING', and then press 'OK' button.
2. Press the ▲ or ▼ button to select 'Version' and then press 'OK' button. You will now be able to view the version details of your product.

Frame Rate Setting

1. In the setting mode, press the ▲ or ▼ button to select 'RECORDER SETTING', and then press 'OK' button.
2. Press the ▲ or ▼ button to select 'Frame Rate' and then press 'OK' button.
3. Press the ▲ or ▼ button to toggle between different frame rates. Once your desired rate is selected, press 'OK' button to confirm and exit.

Time Stamp Setting

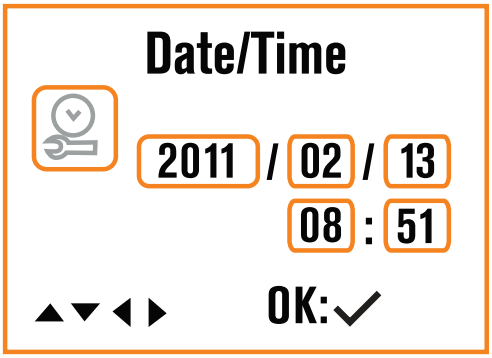
1. In the setting mode, press the ▲ or ▼ button to select 'RECORDER SETTING', and then press 'OK button'.
2. Press the ▲ or ▼ button to select 'Time Stamp' and then press 'OK' button.
3. Press the ▲ and ▼ buttons to toggle between on and off. Once your desired selection is made, press 'OK' button to confirm and exit.

Recording Type

1. In the setting mode, press the ▲ or ▼ button to select 'RECORDER SETTING', and then press 'OK' button.
2. Press the ▲ or ▼ button to select 'Recording Type' and then press 'OK' button.
3. Press the ▲ or ▼ button to toggle between 'still' and 'video'. Once your desired selection is made, press 'OK' button to confirm and exit.

Date/Time Setting

1. In the setting mode, press the ▲ or ▼ button to select 'Date/Time' and then press 'OK', The following interface will appear:



2. Press 'OK' button to select Date or Time; Press the ▲ or ▼ button to adjust selection; Press the button to confirm and exit.

Event Playback

1. In the setting mode, press the ▲ or ▼ button to select 'EVENT PLAYBACK', and then press 'OK' button.
2. Refer to user manual instructions on Playback of Video/Picture, Deleting Video/Picture, and Deleting Folder for guidance.

PC Software Use

Removable Disk (G:)
This disk or device contains more than one type of content.
What do you want Windows to do?
Play
using Windows Media Player
Copy pictures to a folder on my computer
using Microsoft Scanner and Camera Wizard
View a slideshow of the images
using Windows Picture and Fax Viewer
Print the pictures
using Photo Printing Wizard
Play Video Files
using InterVideo WinDVD
Open folder to view files
OK
Cancel

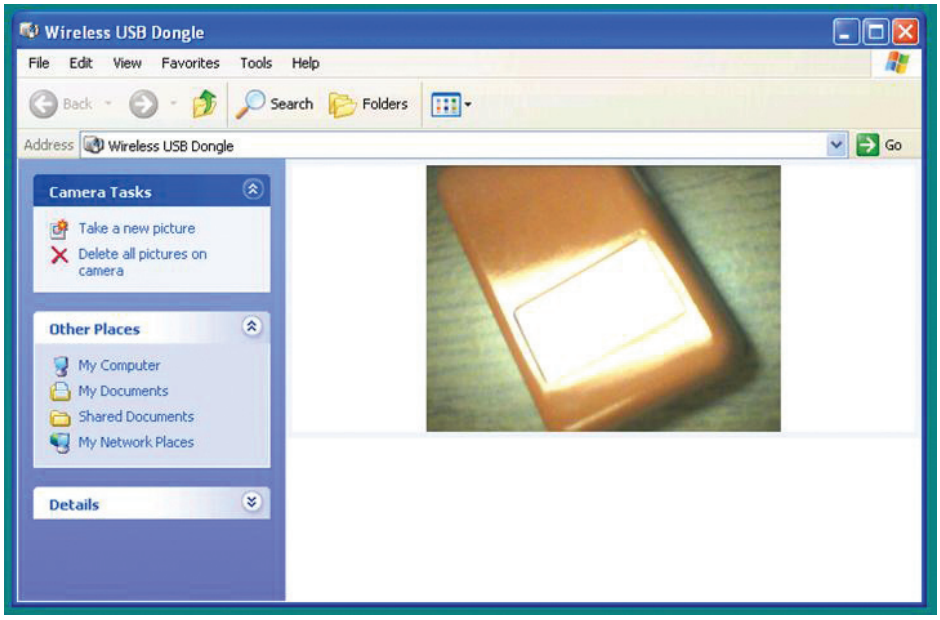
To download recorded files to PC:

1. Connect the USB cable from the monitor to the laptop and power on the monitor.
2. The dialogue box should start automatically. Select "copy pictures to a folder".
3. The wizard will then guide you through the download process.

   Note: *You can also browse the files manually by clicking "My Computer"*

Viewing a Live Stream

1. Connect the dongle to the USB extension.
2. Power on just the camera handle (the monitor may need to be undocked).
3. Click the "View wireless USB Dongle" icon.
4. This will then launch the live view.



Specifications

Model No.	BB03AL
Imaging Sensor	CMOS
Total Pixels	640 480 (PAL) 640 x 480 (NTSC)
Horizontal Viewing Angle	45º
Transmission Frequency	2468MHz
Minimum Illumination	0 Lux
Modulation Type	FM
Bandwidth	18MHz
Power Supply	4 x AA batteries
Unobstructed Effective Range	10m
Waterproof Capacity	IP67 (for lens/tube only)
Tube Diameter	9mm
Camera Dimensions (W x D x H)	186 x 145 x 41(mm) (Excluding Flexible Tube)
Camera Approx. Weight	450g
LCD Screen Type	3.5 TFT-LCD
Effective Pixels	960 x 240
Video System	PAL/NTSC
Transmission Frequency	2414MHz,2432MHz,2450MHz,2468MHz
Exterior Supply Voltage	5v DC
Consumption Current (Max.)	500mA
Working Time	2 hours
Charging Time	3 hours
Picture/Video Pixels	640 x 480
Video Size	27M byte/minute
Frame Rate	30 frame/second
Video Output Level	0.9-1.3VP-P@75ohm
Receiving Sensitivity	≤-85dBm
Monitor Dimensions (W x D x H)	100 x 70 x 25 (mm)
Monitor Approx. Weight	140g
Operating Temperature	-10~50 c
Operating Humidity (Max.)	15~85%rh

FCC Information

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference;
2. This device must accept any interference received, including interference that may cause undesired operation. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Troubleshooting

Problem	Possible causes	Possible Solutions
Tech•Cam will not start or Power On	• LCD Monitor Not charged • LCD Monitor needs to be re-set • AA batteries in Camera Handle Assembly need charging or replacement	• Use power adapter to charge LCD monitor • Charge AA batteries in the Camera Handle Assembly • Perform LCD monitor re-set procedure by inserting a pin into the back of the monitor. The hole is labeled “reset”
LCD monitor will not charge	• Power adapter cable not attached properly to LCD Monitor • Power adapter cable not connected to power	• Make sure power adapter cable is connected correctly at the LCD monitor connection point • Make sure that the power adapter cable is securely plugged into the 110 VAC wall socket
Image on the LCD display is too dark or too light	• LEDs near camera need adjustment • LCD Monitor needs adjustment	• Use dial on camera handle assembly to adjust brightness of LEDs • Use contrast and brightness buttons on LCD monitor to adjust the image
When using the Tech•Link Wireless Video Receiver, the two images appear on the PC display	• Software drivers for Tech•Link are not properly installed • Dongle needs to be restarted	• Uninstall drivers from add/remove programs. Reinstall • Unplug dongle from USB and wait 10 seconds. Reconnect dongle
When using the Tech•Link Wireless Video Receiver, there seems to be interference with the PC display image	• Wireless radio from the C-III could be causing the interference • Other external wireless devices could be causing the interference	• Make sure the Tech•Link wireless video receiver is connected to the C-III with the USB extension cable • Turn Off the wireless radio on the C-III or on the laptop or PC that you are using • Try to keep the Tech•Cam unit as close to the Tech•Link wireless video receiver as possible ***Note:*** *Some interference may not be able to be prevented due to the nature of this product.*
The camera flexible tube lens appears to be scratched. There is a line on the monitor	• End user may have bumped the camera into a solid surface which created the scratch • Pixels may be out on monitor	• Use mild detergent to clean the lens • Swap camera assemblies
LED lights don’t turn on or adjust	• Switch may not be properly rotated • Camera may be bad • Switch may be bad	• Ensure switch is rotated into the on position • Swap cameras to see if LEDs are bad on camera

Parts List

Service P/N	Description
J-50079-1	1 meter long camera, flexible tube cable with 9mm outside diameter
J-50079-2	1 meter long camera, flexible tube cable with 4.5mm outside diameter
J-50079-3	Video Borescope Handle
J-50079-4	Monitor, Power Adapter US
J-50079-5	USB Dongle
J-50079-6	LCD Monitor, 3.5"
J-50079-7	Magnetic Mount
J-50079-8	Accessory Kit: Camera Attachment Mounting Sleeve, Camera Magnet Attachment, Camera Hook Attachment, Camera Mirror Attachment

Warranty

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Bosch Units are warranted against defects in materials and workmanship for two years (24months from date of delivery. This warranty does not cover any Unit that has been abused, altered, used for a purpose other than that for which it was intended, or used in a manner inconsistent with instructions regarding use. The sole and exclusive remedy for any Unit found to be defective is repair or replacement, at the option of Bosch. In no event shall Bosch be liable for any direct, indirect, special, incidental or consequential damages (including lost profit) whether based on warranty, contract, tort or any other legal theory. The existence of a defect shall be determined by Bosch in accordance with procedures established by Bosch. No one is authorized to make any statement or representation altering the terms of this warranty.

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